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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/748,031	12/31/2003	Cheng-Yi Huang	0941-0890P	6813
2292 7590 01/15/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			EXAMINER JUNTIMA, NITTAYA	
			ART UNIT 2616	PAPER NUMBER
			NOTIFICATION DATE 01/15/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/748,031	HUANG ET AL.	
	Examiner	Art Unit	
	Nittaya Juntima	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 12/31/03.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11-16 is/are allowed.
- 6) ☒ Claim(s) 1,4,7,9 and 10 is/are rejected.
- 7) ☒ Claim(s) 2,3,5,6 and 8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/31/03</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to because in Fig. 3, the text description "decoder" for elements 304a-314m should be changed to "encoder" (see specification, page 6, line 17).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### *Claim Objections*

2. Claims 2 and 11 are objected to because of the following informalities:
  - in claim 2, line 5, "the" should be changed to "a";

- in claim 11, line 10, "for" should be inserted before "receiving";  
line 12, "the bit" should be changed to "a bit."

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 9-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9, no element related to a quadrature amplitude modulation is mentioned.

Therefore, the claim is vague and indefinite as it does not clear why a transmitter is claimed as a scalable QAM transmitter but no component related to a QAM technique is included.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

5. Claims 1 and 4 are rejected under 35 U.S.C. 102(a) as being anticipated by the admitted prior art (hereinafter "APA") (Fig. 1 and specification, page 1, lines 10-page 2, lines 11).

Regarding claims 1 and 4, as shown in Fig. 1, APA teaches a communication method of scalable quadrature amplitude modulation (QAM) for a scalable QAM communication system (Fig. 1) comprising a transmitter (102) and a plurality of clients (104, 106, and 108), comprising the steps of:

The transmitter distributing bit data in different bit positions for transmission (since the QAM modulated signal is broadcast by the transmitter 102 and the 64QAM modulated signal contains bit data, it is inherent the transmitter 102 must distribute bit data in different bit positions prior to modulation, specification, page 1, lines 28-page 2, lines 1-3 and 11-14).

The transmitter combining the bit data in the different bit positions into a combined signal (bit data belonging to the 64QAM signal must be combined into a signal in order to be modulated as the 64QAM signal for transmission to network 100 by transmitter 102, page 1, lines 28-page 2, lines 1-3 and 11-14).

The transmitter modulating the combined signal according to a QAM technique into a modulated signal (transmitter 102 modulates the 64QAM signal, page 1, lines 28-page 2, lines 1 and 11-14).

The transmitter broadcasting the modulated signal over a channel (network 100 contains a channel) (page 1, lines 28-page 2, line 1).

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are

such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (hereinafter "APA") (Fig. 1 and specification, page 1, lines 10-page 2, lines 11) in view of Grilli (US 2004/0162071).

Regarding claim 7, although APA teaches that client receives the data transmitted over the channel from the transmitter (specification, page 2, lines 1-3), APA fails to explicitly teach wherein each client receives the data transmitted over the channel from the transmitter after completing a registration procedure.

As shown in Fig. 6, Grilli teaches that each client receives the data transmitted over the channel from the transmitter after completing a registration procedure (mobile stations that subscribed to broadcast content receive a broadcast content from the base station receives the broadcast program in steps 602, 654 and 656, see paragraphs 0091, 0100-0101 and 0107).

Therefore, given the teaching of Grilli, it would have been obvious to one skilled in the art at the time of the invention to modify the teaching of APA such that each client would receive the data transmitted over the channel from the transmitter after completing a registration procedure as recited in the claim. The suggestion/motivation to do so would have been to enable mobile stations (e.g., clients) that subscribes to the broadcast content receive the content.

*Allowable Subject Matter*

8. Claims 2, 3, 5, 6, and 8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claim 10 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. Claims 11-16 are allowed. The prior art alone or in combination fail to teach or make obvious on the following when considered in combination with other limitations in the claim: a plurality of clients for determining whether to demodulate all data on the bit plane or a position of the data on certain bit positions according to the transmission quality of the received signal.

### *Conclusion*

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nittaya Juntima whose telephone number is 571-272-3120. The examiner can normally be reached on Monday through Friday, 8:00 A.M - 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on 571-272-3155. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nittaya Juntima  
January 4, 2008

NS



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